Sexual Behavior

Definition: Sexual behaviors are any actions that allow the expression of one's sexual feelings. These behaviors include holding hands and kissing as well as masturbation and penetrative intercourse. Healthy sexual behaviors are consensual, non-exploitive, and honest, and include actions that protect against unintended pregnancies and sexually transmitted diseases.

Summary

Sexual behavior is part of normal human behavior. Unhealthy sexual behaviors can lead to a number of physical and mental health effects, including unintended pregnancy, AIDS, and other sexually transmitted diseases. These, in turn, can lead to a variety of long term problems, including infertility, ectopic pregnancy, cancer, death, and increased health care costs.

Activities to promote healthy sexual behavior (including abstinence, delaying sexual intercourse, and consistent and correct use of latex condoms) will have a positive impact on many individuals and communities. Because unhealthy sexual behaviors are associated with long-term problems, investments to promote healthy sexual behaviors today can significantly reduce future health-related problems and costs.

Background

Human sexuality is influenced by many factors including age, gender, religion, family, friends, culture, ethnicity, economics, sexual orientation, and past experiences of abuse, discrimination, and oppression. As a result, sexual behaviors are expressed in a variety of ways.

Healthy sexual behaviors tend to have several common characteristics.[1] They are based on shared personal values and respect for one's sexual partners and for people with different values. They are consensual, non-exploitive, and honest.

Healthy sexual behaviors include effective use of contraceptives and prophylaxis, when appropriate. Sexually healthy people practice other preventive health actions such as breast or testicular self-exams, cervical cancer screening, and human immunodeficiency virus (HIV) serologic testing.

In recent years, public health practitioners have focused on "safer sex", rather than the general topic of healthy sexual behaviors. Safer sex means protecting oneself and one's partner against sexually transmitted diseases through abstinence and delay of sexual intercourse, through the consistent and correct use of latex condoms, by engaging in sexual activities other than unprotected intercourse, and by decreasing the number of sexual partners one has.[2] Although this approach focuses on only limited aspects of healthy sexual behavior, public health practitioners acknowledge the other important aspects of healthy sexuality and are supportive of educational efforts that incorporate this broader perspective.

Year 2000 Goals

There are several US goals for the Year 2000 related to sexual behavior. These are found in the family planning, HIV, and sexually transmitted diseases sections of *Healthy People 2000*.[3] Four major themes emerge from these goals:

- Increase the proportion of unmarried adolescents who are abstinent or who delay sexual intercourse.
- Increase the proportion of adolescents and college students who receive education on human sexuality and sexually transmitted diseases through family discussion, school-based curricula, and other means.
- Increase the proportion of sexually active, unmarried persons who effectively use contraceptives and/or latex condoms to prevent unintended pregnancy and protect against sexually transmitted diseases.
- Increase the proportion of primary care and mental health care providers who provide appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Trends

Significant effort has gone into monitoring trends in the health effects of unhealthy sexual behavior (e.g., sexually transmitted diseases, unintended pregnancies, ectopic pregnancies). Very limited information, however, is available on the occurrence and nature of the sexual behaviors themselves, on a national, state, or local level. Although many sexual behavior surveys have been undertaken, most have been considered "methodologically flawed, making their data unreliable, uninterpretable, and impossible to use".[4]

In 1995, the Department of Health undertook a population-based telephone survey among 1,200 Washington State adult residents on their knowledge, attitudes, and beliefs about HIV and AIDS. Although this study was not a sexual behavior survey, it did include questions on number of sexual partners in the last 12 months and use of condoms during the last episode of sexual intercourse.

Based on this survey, 86% of Washington State residents 18-64 years of age reported that they had had sexual intercourse with at least one partner in the last 12 months; 12% reported that they had had two or more partners. Persons who were single or living with someone were more likely to report two or more partners than those who were married.

Number of sexual partners reported in the last 12 month by marital status, Washington State residents, 18-64 years of age, 1995.

Sexual partners	Marital Status*		
	Married	Single**	Total***
0	5%	34%	14%
1	94%	37%	73%
2-4	1%	24%	11%
5+	0%	5%	2%

*Marital status at time of interview. Marital status may have changed during 12 month period.
**Single includes persons never married, divorced, and widowed.
***Total includes persons living together but not married.

Among persons reporting "single" as their marital status, men were more likely than women to report two or more sexual partners in the last 12 months (39% vs. 19%); 9% of men and only 1% of women reported five or more partners in the last 12 months. Single persons 18-24 years of age were more likely than older single persons to report two or more sexual partners in the past 12 months (36% vs. 26%). This association with age was seen among men but not women. Neither education nor income affected whether a person reported two or more sexual partners in the last 12 months.

Among "single" persons who reported at least one sexual partner in the last 12 months, 43% reported using a condom the last time they had sexual intercourse; single men were more likely than single women to report that they or their partner had used a condom (49% vs. 32%). Younger, sexually-active, single persons (18-24 years of age) were more likely than older, sexually-active, single persons (25-39 years and 40-64 years) to report having used a condom. Among single persons with more than one sexual partner in the last 12 months, only 53% reported using a condom during their last sexual intercourse; 72% of those whose last sexual intercourse was not with a regular partner reported using a condom.

Ninety-four percent of all persons surveyed said they knew what "safer sex" was. However, only 40% thought that condoms were highly effective in preventing the transmission of HIV and other sexually transmitted diseases; an additional 46% thought that they were moderately effective.

Although this survey provided only limited information on sexual behavior among Washington adult residents, it did illustrate the large proportion of persons impacted by sexual behavior and that a significant proportion are engaging in "unsafe" sexual behaviors.

Health Effects

While healthy sexual behaviors can contribute significantly to a productive and happy life, unhealthy sexual behaviors can have broad-reaching negative effects, many of which are long-term.

Sexually transmitted diseases. Sexually transmitted diseases affect 12 million men and women in the United States each year.[5] Sexually transmitted diseases are caused by a wide variety of agents including bacteria (e.g., syphilis, gonorrhea, chlamydia), viruses (e.g., HIV, hepatitis B, herpes simplex, and human papilloma virus),

protozoa (e.g., trichomonas) and arthropods (e.g., scabies).

Sexually transmitted diseases can cause acute illness, long term effects, and even death. Among women with untreated chlamydia and/or gonorrhea, 10-40% will develop upper genital tract infection or pelvic inflammatory disease (PID).[6] These infections can, in turn, lead to infertility, ectopic pregnancy, and chronic pelvic pain syndromes.

Sexually transmitted diseases can be transmitted from pregnant women to their fetuses, possibly resulting in fetal loss (including stillbirth and spontaneous abortion), low birth weight or prematurity, and congenital infection. Hepatitis B can result in chronic active hepatitis, cirrhosis, and liver cancer. Human papilloma virus has been strongly associated with various genital carcinomas, particularly cervical carcinoma in women.[7] HIV infection leads to severe immunosupression, life-threatening infections and cancers (i.e., AIDS), and ultimately death in most infected persons.

Unintended pregnancy. Based on the 1990 National Survey of Family Growth (NSFG), 57% of all pregnancies and 44% of all births nationally were unintended at the time of conception. Based on the Pregnancy Risk Assessment Monitoring System (PRAMS), unintended pregnancies accounted for 40% of births in Washington State in 1993 and 1994. (See section on Unintended Pregnancy.)

Unintended pregnancy is not just a problem of teenagers or unmarried women. The 1990 NSFG found that about 50% of pregnancies among women 20-34 years of age were unintended, 40% of pregnancies among married women were unintended, and over 75% of pregnancies among women over age 40 were unintended.

Unintended pregnancy is a risk factor for late or inadequate prenatal care, low birth weight, exposure of the fetus to harmful substances like tobacco, alcohol and other drugs, and neonatal death.[8] Research suggests that unintended births lead to more child abuse and neglect, particularly among single mothers with low incomes and large families.[9] Unintended pregnancies have also been associated with social and economic risk factors like economic hardship, failure to achieve educational and career goals, marital dissolution, and spouse abuse.

Psychosocial impact. Having sex at a time or in a way that is not desired can lead to lowered self-esteem and feelings of personal isolation or vulnerability. These feelings can be evidenced in many aspects of daily living. They can lead to withdrawal and depression, an inability to develop appropriate sexual and non-sexual relationships with others, and poor performance in school or work. In extreme situations, the consequences of these feelings may be violent, leading to such things as rape, incest, spouse abuse, and attempted suicide.

People of Particular Interest

Some sociodemographically defined populations appear to have a higher frequency of persons practicing unhealthy sexual behaviors as suggested by increased rates of sexually transmitted diseases and unintended pregnancies.

Youth. Some of the highest rates of sexually transmitted diseases are seen among persons 15-19 years of age. From PRAMS data, 82% of pregnancies among teenagers are unintended. Part of the increased risk for sexually transmitted diseases may be physiologic; adolescent females have an increased susceptibility to chlamydia and other infections due to a developmental condition of the cervix and lack of immunity to the infectious agents. However, increased risk-taking behaviors in this age group also contribute significantly to these high rates. Based on data from the 1992 Washington State Survey of Adolescent Health Behavior, by 12th grade 60% of students report that they have had sexual intercourse; 20% report that they have had intercourse with four or more partners. Only 50% reported having used a condom during their last sexual intercourse and nearly a quarter drank or used drugs before sexual intercourse. Although these are self-reported rates and the true rates of sexual activity among teens are unknown, the findings are of concern because adolescence is the time during which people should develop the knowledge, attitudes, and skills that become the foundation for a psychologically healthy adulthood.

People of color. Rates of most sexually transmitted diseases are higher among blacks, Native Americans, and persons of Hispanic origin than among whites. In addition, unintended pregnancy is more common among black women than white women. In the 1990 NSFG, 62% of

births among black women and 42% of births among white women were reported as unintended. Although there are no physiologic reasons for these higher rates of sexually transmitted diseases and unintended pregnancies, race/ethnicity probably serves as a marker for other more fundamental determinants of health status such as poverty, lack of access to quality health care, and health-care-seeking behaviors.

Women of reproductive age. Women, in general, are at higher risk than men for infection with sexually transmitted diseases because most of the diseases, including HIV, are more efficiently transmitted from male to female than female to male. This results from the anatomy of the vagina, which facilitates prolonged exposure of a woman to the infected secretions from her partner following intercourse. In addition to this increased risk of infection, the long-term effects of these diseases among women such as PID, infertility, and ectopic pregnancies and the severe consequences of transmission perinatally make women a group of particular concern.

Gays and lesbians. In the past, gay men have been at high risk for a number of sexually transmitted diseases including syphilis, gonorrhea, hepatitis B, and HIV. Through the adoption of safer sexual behaviors, however, the incidence of these diseases has been greatly reduced in this group.

Little information is available on the prevalence of sexually transmitted diseases among women who have sex with women, particularly lesbians. However, several studies have noted that both bisexual women and lesbians are at increased risk for drug and alcohol abuse and that a significant proportion engage in high risk sexual behaviors.[10,11]

Substance abusers. Persons with impaired decision-making abilities, whether due to legal drugs such as alcohol or illegal drugs such as methamphetamines and cocaine, are at increased risk for engaging in unsafe sexual behaviors. Sexual partners of substance abusers are also at increased risk for the infections contracted by their substance abusing partners. Recent outbreaks of syphilis and other sexually transmitted diseases have been linked to concurrent epidemics of illegal drug use, particularly "crack" cocaine, and the exchange of sex for drugs or money.

Intervention Points, Strategies and Effectiveness

Because the effects of unhealthy sexual behavior are so broad reaching, promotion of healthy sexual behaviors can have a major impact on the health and well-being of a community.

Education. For decades, there has been widespread public support for sexuality education.[12] This has continued, particularly since the emergence of the HIV epidemic. In a 1995 telephone survey of Washington residents about HIV/AIDS knowledge, attitudes, and beliefs, 91% of adults supported sex education in junior or senior high school; 96% supported education about sexually transmitted diseases; and 97% supported education about AIDS.

The topic of sex education in the schools, however, has been controversial in some communities. In particular, there is concern that sexual activity may be increased by direct discussion of sexual behavior and contraceptive use. The available data suggest the contrary. Many adolescents become sexually active before having had any formal sex education. Moreover, although there is insufficient evidence to determine whether abstinence-only programs are effective, several studies have shown that sexual intercourse in young adolescents can be postponed and that use of contraceptives can be increased once sexual activity has begun by participation in selected comprehensive sex education programs.[13]

In a recent evaluation of abstinence education, sex education, and HIV education in the classroom and other settings, the following characteristics were associated with effective sex education programs. These programs:[14]

- Include a small number of specific behavioral goals to reduce sexual risk taking behavior.
- Are based on theoretical approaches that have been demonstrated to be effective in influencing other health-risk behaviors.
- Are of sufficient duration or are taught in small groups to increase efficiency of time spent.
- Employ methods that involve the participants and help them personalize the information such as experiential activities and the use of peer educators and videos.
- Provide basic, accurate information about the risks of unprotected intercourse and

methods for avoiding unprotected intercourse.
- Include activities that address social pressures on sexual behavior.
- Provide modeling and practice of communication and negotiation skills.
- Reinforce clear and appropriate values and messages, tailored for the age and experience of the target population

Although each of these factors plays a part in effective sexuality education, there is little evidence regarding which contribute most to overall success. Further evaluation of sex education in different settings could shed light on this question.

Mass media. Through television, movies, music, and the printed media, the public is barraged with a multitude of sexual images. These images only rarely present sex in a manner that supports responsibility, respect, caring and consent, and protection against both unintended pregnancy and sexually transmitted diseases; too often they highlight the risks rather than the benefits of contraception.[15] This concerns some people who believe that these portrayals of sex may impact real-life sexual behaviors, particularly those among teens.

Whether the media should be encouraged to reinforce sex education materials or promote "safer" sex and sexual responsibility through their regular programming is controversial. Successful models for this use of the media, however, do exist. Over the last decade, programming in the United States has increasingly avoided the portrayal of smoking and drinking as glamorous, high status activities.[16] In other countries, popular media, ranging from comic strips to radio soap operas, have been successfully used to encourage social responsibility, particularly in the area of sexual and reproductive health.[17] Whether these portrayals of sex through the media would be effective (or even possible) in the United States is unknown. At least one summit supported by the Kaiser Family Foundation, however, has brought together writers and producers from daytime television soap operas, network programming chiefs, and many experts in related fields to explore how the media could more responsibly deal with issues related to reproductive health and sexuality.

Access to health care. Access to preventive and clinical health services is a cornerstone of the Public Health Improvement Plan and *Healthy People 2000*. Availability and acceptability of these services has been associated with reduced morbidity and mortality in a wide range of areas. Access to sexual and reproductive health services has also been shown to be cost-effective in reducing undesirable outcomes: widespread screening for sexually transmitted diseases has lowered both gonorrhea and chlamydia prevalence; family planning services have reduced unintended pregnancy; prenatal services have improved birth weights and lowered infant mortality.[6,18,19]

To be most effective, preventive and clinical health services need to be sensitive, confidential, and accompanied by age and culture-appropriate counseling on HIV, other sexually transmitted diseases, and sexual behavior. Unfortunately, many providers are unprepared to do this; in a 1987 national survey, only 10% of physicians reported that they regularly assessed the sexual behavior of their patients.[20] To improve this situation, health care providers need improved training in human sexuality, including normal physical development, the relationship between sexual behavior and transmission of sexually transmitted diseases, and the range of sexual expression.

Monitoring sexual behaviors. Accurate and timely public health information on sexual behaviors and their health impact allows the monitoring of trends over time and the identification of high risk populations. This information can be used to identify effective strategies for promoting healthy sexual behaviors and to better focus the use of limited program resources.

Public health officials can work to improve the local infrastructure for collecting, analyzing, interpreting, and disseminating information on sexual behaviors, not only among adults but also among adolescents. Sexual behavior among adolescents is particularly difficult to assess due to limitations on the types of information that can be collected without parental consent and the reluctance of schools and communities to participate in these surveys.

Sexual health requires the integration of psychological, physical, social, cultural, educational, and economic factors. Sexual health

cannot be achieved solely though actions of individuals or couples engaged in sexual behavior; it also requires involvement of the family, the community, legislators, media, and businesses.

Data Sources

1995 Washington State HIV/AIDS Knowledge, Attitudes, and Beliefs Survey

1993-94 Washington State Pregnancy Risk Assessment Monitoring System

1990 National Survey of Family Growth

1992 Washington Survey of Adolescent Health Behaviors

For More Information

Washington State Department of Health

Office of HIV/AIDS Prevention and Education (360)586-0426

Office of Sexually Transmitted Diseases Services (360)753-5810

Office of Family Planning and Reproductive Health (360)586-1300

Technical Notes

The 1995 Washington State HIV/AIDS Knowledge, Attitudes, and Beliefs Survey was undertaken in June of 1995. A total of 1,200 adult (18 years of age and older) residents of Washington State were interviewed in the survey; 400 persons from eastern Washington, 400 persons from western Washington (outside King County), and 400 persons from King County. Survey participants were selected by random digit dialing; information was collected through a standardized telephone interview. Information collected included knowledge about modes of HIV transmission, attitudes toward HIV-infected persons, self-perceived risk of HIV infection, sexual behavior information, history of HIV testing, and demographic information. Sexual behavior information was only collected from persons 18-64 years of age. Survey results were weighted by age, gender, and region of residence.

Endnotes:

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[14]Kirby D. A review of educational programs designed to reduce sexual risk taking behaviors among school-aged youth in the United States. U.S. Congress Office of Technology Assessment and the National Technical Information Service, Washington D.C.;1995; pp. 28-30.

[15]Institute of Medicine.The Best Intentions. National Academy Press:Washington, D.C. 1995; p. 258.

[16]Ibid, p. 259.

[17]The Use of Mainstream Media to Encourage Social Responsibility: The International Experience, Advocates for Youth, September 1995 (#1092).

[18]Klerman LV, Klerman LV. More evidence for the public health value of family planning. American Journal of Public Health 1994;84:1377-78.

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[20]U.S. Department of Health and Human Services. Healthy People 2000. National Health Promotion and Disease Prevention Objectives. Midcourse revisions. September 1994.